IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): An X-ray CT apparatus, comprising:

an X-ray irradiation source configured to irradiate X-rays to a volume of interest;

an X-ray detector including a plurality of detection element segments configured to detect the X-rays penetrated through the volume of interest;

a collimator configured to create an opening that is movable at least in a slice direction and a channel direction;

an image processing part configured to generate volume data from the detected X-rays and to extract a portion of the volume data corresponding to the volume of interest;

a controller configured to set the opening of the collimator to a first opening size to irradiate a first scanning range and configured to perform a first scan of the first scanning range, and to set the opening of the collimator in the channel direction to a second opening size to irradiate a second scanning range corresponding to the portion of the volume data and configured to perform a second scan of the second scanning range such that the second scanning range receives an amount of X-ray greater than an area external to the second scanning range ~~area~~; and

a reconstruction part configured to reconstruct image data based on data collected by the second scan including data from the second scanning range ~~area~~ and external data from an ~~the~~ area within the first scanning range but external to the second scanning range ~~area~~.

Claim 2 (Original): The X-ray CT apparatus according to claim 1, wherein the at least one controller is configured to set the opening of the collimator to a first opening size that is wider than the second opening size and to perform a first scan.

Claim 3 (Original): The X-ray CT apparatus according to claim 2, wherein the amount of the X-rays used on the first scan is lower than an amount of the X-rays used in the second scan.

Claim 4 (Original): The X-ray CT apparatus according to claim 2, wherein: the first scan includes a helical scan, the second scan includes a helical scan, and a helical pitch of the second scan is shorter than a helical pitch of the first scan.

Claim 5 (Original): The X-ray CT apparatus according to claim 2, wherein a number of the plurality of detection element segments used in the second scan is fewer than a number of the plurality of detection element segments used in the first scan.

Claim 6 (Previously Presented): The X-ray CT apparatus according to claim 2, wherein the reconstruction part compensates external data of the second scanning range with data collected by the first scan.

Claim 7 (Original): The X-ray CT apparatus according to claim 6, wherein the external data is collected during the second scan.

Claim 8 (Original): The X-ray CT apparatus according to claim 6, wherein the external data is collected based on an X-ray detected by detection element segments other than detection element segments used in the second scan.

Claims 9-21 (Canceled).

Claim 22 (Currently Amended): An X-ray CT apparatus, comprising:

an X-ray irradiation source configured to irradiate X-rays to a volume of interest;

an X-ray detector including a plurality of detection element segments configured to detect the X-rays penetrated through the volume of interest;

a collimator configured to create an opening that is movable at least in a slice direction and a channel direction;

an image processing part configured to generate volume data from the detected X-rays and to extract a portion of the volume data corresponding to the volume of interest;

a controller configured to set the opening of the collimator to a first opening size to irradiate a first scanning range and configured to perform a first scan of the first scanning range, and to set the opening of the collimator in the channel direction to a second opening size to irradiate a second scanning range corresponding to the portion of the volume data and configured to perform a second scan of the second scanning range; and

a reconstruction part configured to reconstruct image data based on data collected by the second scan and external data ~~of~~ in the first scanning range but outside the second scanning range ~~collected by the first scan~~.